

REMARKS

Claims 1-16 are pending. By this amendment, claim 17 is cancelled without prejudice or disclaimer. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Entry of the Amendment is proper under 37 C.F.R. §1.116 as the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issues that will require further consideration and/or search as the amendments merely cancel claim 17; (c) do not present any additional claims without canceling a corresponding number of claims; and (d) place the application in better form for appeal should an appeal be necessary. The amendment are necessary and were not earlier presented as they are in response to the objection to the drawings. Entry of the amendment is thus respectfully requested.

The drawings were objected to under 35 C.F.R. §1.83(a). Claim 17 has been cancelled, thus rendering moot the objection.

Claims 1-3, 6, 7, 10, 12 and 14-17 were rejected under 35 U.S.C. §103(a) over Nishi (U.S. Patent 5,243,195) in view of Ferraro et al. The rejection is respectfully traversed.

MPEP §2143 states "To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or a knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all claim limitation."

Claims 1, 12, 15, and 16 each recites reference frame. The Office Action on page 2, paragraph number 3 states that Nishi discloses "a reference frame (inherent)." MPEP §2112 states that "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it will be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set circumstances is not sufficient.'" MPEP §2112 also states that "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonable support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art."

It is respectfully submitted that the Examiner has not met the burden of establishing that the reference frame of claims 1, 12, 15, and 16 is inherently disclosed by Nishi. The

Examiner has provided no basis in fact and/or technical reasoning to reasonable support the determination that Nishi inherently discloses a reference frame. The Examiner is respectfully requested to provide such basis or withdraw the rejection. As Nishi does not disclose or suggest a reference frame, and as Ferraro et al. also do not disclose or suggest a reference frame, the combination of Nishi and Ferraro et al. does not present a *prima facie* case of obviousness against claims 1, 12, 15, and 16 as all of the limitations in claims 1, 12, 15, and 16 are not present in the two references.

The Office Action on page 3, lines 12-17 states that it would have been obvious to one of ordinary skill in the art to use a two-dimensional CCD for light detection “since a person in the art would choose to implement from among the known equivalents based solely on design choice absent any showing of criticality; the lack of criticality is demonstrated by Applicants claiming of a plurality of equivalent devices.”

Firstly, it is noted that “criticality” is not a condition of patentability. There is no requirement anywhere in Title 35 of the United States Code that states that any element or limitation in a claim be “critical” to establish patentability. Secondly, “design choice” is not an acceptable motivation for combining references. MPEP §2143.01 states that there are three possible sources for motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” Thirdly, with respect to the so-called lack of criticality being “demonstrated by applicant’s claiming of a plurality of equivalent devices,” MPEP §2144.06 states that “In order to rely on equivalence as a rational supporting an obviousness rejection, the equivalency must be recognized in the prior art, and cannot be based on applicant’s disclosure or the mere fact that components at issue are functional or mechanical equivalents.” The Examiner’s reliance on Applicants’ disclosure and claims as evidence of the so-called equivalency of the devices is clearly improper.

Lastly, it is respectfully submitted that it would not have been obvious to one of ordinary skill in the art to provide a two-dimensional CCD, as shown by Ferraro et al., to the projection exposure apparatus of Nishi, as alleged by the Examiner. As discussed in the previous response, as clearly shown in Figure 2 of Nishi the beam provided by the laser interferometer IFX and reflected by the movable mirror IMX and the beams provided by the interferometers IFY1 and IFY2 and reflected by the movable mirror IMY are clearly reflected as to be one-dimensional, not two-dimensional as recited in each claims 1, 12, 15 and 16. There is simply no advantage to be gained by supplying a two-dimensional detector to the apparatus of Nishi.

Claims 2, 3, 6, 7, 10 and 14 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1 and 12 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-3, 6, 7, 10, 12 and 14-16 under 35 U.S.C. §103(a) over Nishi in view of Ferraro et al. are respectfully requested.

Claims 1-4, 6-8 10, 12 and 14-17 were rejected under 35 U.S.C. §103(a) over Van Den Brink (U.S. Patent 5,801,832) in view of Ferraro et al. The rejection is respectfully traversed.

The Office Action on page 4, paragraph 4 makes the same inherency rejection regarding the disclosure of a reference frame by Van Den Brink as was made with respect to Nishi. As discussed above, the Examiner is respectfully requested to provide a basis in fact and/or technical reasoning to reasonably support this inherency determination or withdraw the rejection.

As also discussed above with respect to the combination of Nishi and Ferraro et al., the combination of Van Den Brink and Ferraro fail to establish a *prima facie* case of obviousness against claims 1, 12, 15 and 16 as neither Van Den Brink nor Ferraro disclose or suggest a radiation source mounted on a reference frame and a two-dimensional radiation detector mounted in a fixed position on the reference frame, as neither reference discloses a reference frame.

With respect to the Office Action's assertions on page 4, lines 17-22 that it would have been obvious to one of ordinary skill in the art to employ a two-dimensional CCD in the device of Van Den Brink, as discussed, the Examiner's requirement of a showing of "criticality" for any particular claim feature is not supported by any section of Title 35 of United States Code; the Examiner's reliance on "design choice" as a motivation is clearly contrary to the case law and the PTO policy as set forth in MPEP §2143.01; and the Examiner's determination that the claimed devices are equivalent by reliance on Applicants' disclosure, instead of the prior art, is clearly contrary to the PTO's policy as set forth in MPEP §2144.06.

Claims 2-4, 6-8, 10 and 14 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1 and 12 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-4, 6-8, 10, 12 and 14-16 under U.S.C. §103(a) over Van Den Brink in view of Ferraro are respectfully requested.

Claim 5 is rejected under 35 U.S.C. §103(a) over Nishi in view of Ferraro et al. and further in view of Gallagher (U.S. Patent 5,811,816). The rejection is respectfully traversed.

Claim 5 recites additional features of the invention and is allowable for the same reasons discussed above with respect to claim 1 and for the additional features recited. In addition, it is respectfully submitted that Gallagher et al. fails to cure the deficiencies of Nishi and Ferraro et al. with respect to claim 1 and any combination of Nishi, Ferraro et al. and Gallagher et al. will fail to result in the invention of claim 1.

Reconsideration and withdrawal of the rejection of claim 5 under 35 U.S.C. §103(a) over Nishi in view of Ferraro et al. and Gallagher et al. are respectfully requested.

Applicants appreciated the indication that claims 11 and 13 define patentable subject matter. However, in view of the amendments and remarks, it is respectfully submitted that all of the claims are allowable and that the entire application is in condition for allowance.

Should the examiner believe that anything further is desirable to place the application in better condition for allowance, the examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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